C Extension

SOIL TEST REPORT

ROBERT E WILSON 2338 CHARLIE DOTY ROAD

GREENEVILLE, TN 37745

Deborah K. Joines
Manager
Soil, Plant and Pest Center
5201 Marchant Drive
Nashville, TN 37211-5112
(615) 832-5850
soilplantpestcenter@utk.edu

Date Tested: 6/29/2011

County: Greene Lab Number: 418108 Sample ID PLOT02 (Pounds Per Acre Water Buffer Ca Cu Fe В Na **Nitrates** Value Phosphorus Potassium pН Calclum Magnesium Zinc Copper Boron Iron Manganese Sodium Sulfur (ppm) 6.1 99 Η 63 2105 S 274 S Organic Soluble Matter Salts

RECOMMENDATIONS PLOT02 Fedtilizet/Lime Application Rate and similing.

Grass or Grass/Legume Hay

N/P2O5/K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 60-90 pounds per acre

Limestone:

Lime is not recommended at this time

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds of N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

Cou Samp	Inty: C													ab Nu	mber:	4181	09 🚜
Water pH	Buffer Value	Phosp	horus	K Potass	ium	Ca Calciu	m	Mg Magnes		Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
5.9	7.6	94	Н	465	ν	1685	s	306	s					7.			(65)
	Orga Mat %	ter :	oluble Salts PPM**										0 8 2011				

WILSON - Page 1

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at http://soilplantandpest.utk.edu for additional information.

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 - 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT (D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due tot he concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation.

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations RECEIVED
0 - 360	Very Low	Salt effects mostly negligible.
361 - 1060	Low	Field crops mostly unaffected.
1061 - 1760	Medium	Field crops mostly unaffected. Favorable range for most established plants. JUL () 8 2011
2461 - 3160	High	Reduced yields and growth of many plants.
3161 +	Very High	Severe salt injury and death may occur.
*ppm - parts per million total sa	alt in the air-dried sample	

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in *actual pounds of nutrient* per acre expressed as N, P2Os and K2O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.

Extension

SOIL TEST REPORT

ROBERT E WILSON 2338 CHARLIE DOTY ROAD

GREENEVILLE, TN 37745

Manager Soil, Plant and Pest Center 5201 Marchant Drive Nashville, TN 37211-5112 (615) 832-5850 soilplantpestcenter@utk.edu

Date Tested: 6/29/2011

A								Da	to I	esieu. O	23/20 1						
COL	ınty: G	reene			Succession 1		(GENELLI)						L	ab Nu	mber: 🖺	4181	08-
		de El			- 11	ehlisk		લભાદ	TES	TRES	JETS an		INGS*#		e de la companya de		
Samp	le iD	PLO	T02 **					Table 1	**/	Pounds	Per Acre						
2.300	ener e men of motion (0.019m)	一年のでは、一人の日本日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日	anand (\$100) day				CASHED.										
Water pH	Buffer Value	Phosp		K Potass	ilum	Ca Calciu	ım	Mg Magnes		Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.1		99	Н	63	L	2105	S	274	s				•				(6,5)
	Orga Matt %	ter S	oluble Salts PM**														

KEGOMMENDÁTRONS Gentilizer/Lime Application Rate and Timing MECEN

Grass or Grass/Legume Hay

N/P2O5/K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 60-90 pounds per acre

Limestone:

Lime is not recommended at this time

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

Cou Samp	Inty: G				M	ejilidi Filipi	ΙΊ				Ursin Rayvar		ikes .	ab Nu	mber:	4181	09
Water pH	Buffer Value	Phos	P phorus	K Potass	ium	Ca Calciu	ım	Mg Magnes		Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
5.9	7.6 Orga Mati %		H Soluble Salts PPM**	465	V	1685	S	306	S				•			ound.	(ppm)

JUL 0 8-2011

William Com

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.) **PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office. Visit our web site at http://soilplantandpest.utk.edu for additional information.

WILSON - Page 1

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 - 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT (D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due tot he concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation. PECENER

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations JUL () § 2011
0 - 360	Very Low	Salt effects mostly negligible.
361 - 1060	Low	Field crops mostly unaffected.
1061 - 1760	Medium	Favorable range for most established plants.
2461 - 3160	High	Reduced yields and growth of many plants.
3161 +	Very High	Severe salt injury and death may occur.

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

*ppm - parts per million total salt in the air-dried sample

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in actual pounds of nutrient per acre expressed as N, P2O5 and K2O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.

U Extension

SOIL TEST REPORT

ROBERT E WILSON 2338 CHARLIE DOTY ROAD

GREENEVILLE, TN 37745

Deborah K. Joines
Manager
Soil, Plant and Pest Center
5201 Marchant Drive
Nashville, TN 37211-5112
(615) 832-5850
soilplantpestcenter@utk.edu

Date Tested: 6/29/2011

County: Greene Lab Number: 418108 Mehlichs SOLLTESTARESULTS and RATINGS: Sample ID PLOT02 Water Buffer Mg Zη Cu Fe Mn R **Nitrates** Phosphorus Potassium pН Value Calcium Magnesium Zinc Copper Iron Manganese Boron Sodium Sulfur (ppm) 6.1 99 Н 63 2105 S Organic Soluble Matter Salts РРМ*

PLOTO2 - Refullizer/Elme Application Rate and Timing

Grass or Grass/Legume Hay

N / P2O5/ K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 60-90 pounds per acre

Limestone:

Lime is not recommended at this time

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

	inty: C						14	Yoll (ara s Robbie			ilves = :	ab Nu	mber:	418	08
Water pH	Buffer Value	Phosp		K Potass	ium	Ca Calciu	ım	Mg Magne:	•	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates
5.9	7.6 Orga Mati %	ter :	H oluble Saits PPM**	465	V	1685	S	306	s				3	40.00	Couldin	Sulla	(ppm)

WILSON - Page 1

JUL 0 8 2011

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 - 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT (D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due tot he concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation.

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations JUL 0 8 2011
0 - 360	Very Low	Salt effects mostly negligible.
361 - 1060	Low	Field crops mostly unaffected.
1061 - 1760	Medium	Favorable range for most established plants.
2461 - 3160	High	Reduced yields and growth of many plants.
3161 +	Very High	Severe salt injury and death may occur.
*ppm - parts per million total sa	It in the air-dried sample	

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in *actual pounds of nutrient* per acre expressed as N, P2O5 and K2O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.



RECOMMENDATIONS

PLOT03

Fertilizer/Lime Application Rate and Ciming

Grass or Grass/Legume Hay

N/P2O5/K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 0 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

Lab Number: 3418110 County: Greene Menlich 1 SOIL TEST RESULTS and RATINGS: 4 4 A 4 A 4 esse (Pounds RenActe) PLOT04 Sample ID P ĸ Ca Ma Cti Fe Mn В S **Nitrates** Water Buffer Calcium Zinc Copper **Phosphorus** Potassium Magnesium Boron Sodlum Sulfur Iron Manganese pH (maa) Value 6.0 7.5 147 M 3099 S S 63 Н 311 Organic Soluble Matter Salts % PPM*

EN RECOMMENDATIONS

PLOT04

Fertilize/Eime Application: Rate and Timing

JUL 0 8 2011

A STORES OF WAR. A STORES OF STORES

Grass or Grass/Legume Hay

N / P2O5/ K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 30-60 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds of N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

County: Greene Lab Number: 418111 Mehliar Kreitzieki (Pounds Per Acr Sample ID PLOT05 Mg Zn Fe Nitrates Water Buffer Phosphorus Potassium Calcium Magnesium Zinc рH Value Copper Iron Manganese Boron Sodium Sulfur (ppm) 5.5 7.6 89 142 M 1627 S 207 S

WILSON - Page 2

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 - 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT (D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due tot he concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation.

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations The Company of the C	
0 - 360	Very Low	Salt effects mostly negligible.	
361 - 1060	Low	Field crops mostly unaffected.	
1061 - 1760	Medium	Favorable range for most established plants.	
2461 - 3160	High	Favorable range for most established plants. Reduced yields and growth of many plants.	
3161 +	Very High	Severe salt injury and death may occur.	

^{*}ppm - parts per million total salt in the air-dried sample

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in *actual pounds of nutrient* per acre expressed as N, P2O5 and K2O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.



irucominiendations.

PLOT03

Fertilizer/Lime Application Rate and Timing

Grass or Grass/Legume Hay

N/P2O5/K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 0 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

County: Greene Lab Number: 418110 Mehlich 1 SOIL TEST RESULTS and RATINGS ം പ്രധാനമായില് Arena Sample ID PLOT04 ĸ Сa Mg Cu Fe Mo В Nitrates Water Buffer Calcium **Phosphorus** Potassium Zinc Copper Boron Sodium Sulfur Magnesium Iron Manganese (magg) 6.0 7.5 63 Н 147 M 3099 S 311 S Organic Soluble Salts Matter % PPM*

RECOMMENDATIONS

PLOT04

...... * Fertilizer/Lime Application Rate and Timing a

Grass or Grass/Legume Hay

N / P2O5/ K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 30-60 pounds per acre

JUL 0 8 2011

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds of N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

County: Greene Lab Number: 5 418/111 Sample ID PLOT05 Ca Mg Zn Си Fe Mn Na **Nitrates** Water Buffer Zinc Phosphorus Potasshim Calcium Magnesium Copper Iron Manganese Boron Sodium Sulfur (ppm) pΗ Value 5.5 7.6 89 142 M 1627 S 207 S Н

WILSON - Page 2

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 - 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT (D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due tot he concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation.

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations JUL 0 8 2011
0 - 360	Very Low	Salt effects mostly negligible.
361 - 1060	Low	Field crops mostly unaffected.
1061 - 1760	Medium	Favorable range for most established plants.
2461 - 3160	High	Reduced yields and growth of many plants.
3161 +	Very High	Severe salt injury and death may occur.

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

*ppm - parts per million total salt in the air-dried sample

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in *actual pounds of nutrient* per acre expressed as N, P2O5 and K2O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.



regommendations

PLOT03

**** Fertilizer/Lime/Application:Rate and Timing.

Grass or Grass/Legume Hay

N / P2O5/ K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 0 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

County: Greene A CARLON STATE Mehlich 1 SOIL TEST RESULTS and RATINGS*

Lab Number: 418110

Sample ID PLOT04

	Buffer Value		horus	K Potass		Ca Calciu	m	Mg Magnes		Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	Nitrates (ppm)
6.0		63		147	Μ	3099	S	311	s							

Organic Soluble Matter Salts %

PLOT04

Fertilizer Lime Application Rate and Timing

Policina Ca

TUL 6 8 2011

Grass or Grass/Legume Hay

N / P2O2/ K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 30-60 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

County: Greene 418111 Lab Number: Mehicharcollatestaresults and ratings*

Pounds Per Acre PLOT05 Sample ID Ca Zn Cu Fе Ma В Water Buffer Mo Na S Nitrates **Phosphorus** Potassium Calcium Magnesium Zinc Copper pН Value Iron Manganese Sodium Sulfur (ppm) 5.5 7.6 89 Н 142 M 1627 S 207 S

WILSON - Page 2

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.) **PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at http://soilplantandpest.utk.edu for additional information.

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 ~ 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT (D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due tot he concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation.

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations 🕕	0 8 2011
0 - 360	Very Low	Salt effects mostly negligible.	•
361 - 1060	Low	ricia crops mostly andriceted.	ariotika kabi∮i
1061 - 1760	Medium	Favorable range for most established plants.	Car Total
2461 - 3160	High	Reduced yields and growth of many plants.	
3161 +	Very High	Severe salt injury and death may occur.	
	, -		

^{*}ppm - parts per million total salt in the air-dried sample

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in *actual pounds of nutrient* per acre expressed as N, P₂O₅ and K₂O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.



RECOMMENDATIONS

PLOT05

Fertilizer/Lime Application Rate and Timing

Grass or Grass/Legume Hay

N / P2O5/ K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 30-60 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

County: Greene Mehlich 1 SOIL TEST RESULTS and RATINGS*

(Pounds Per Acre)

Sample ID PLOT06

Ca Buffer Water **Phosphorus** Potassium Value pН

Ma Magnesium Calcium

275

S

1925 S

Zn Zinc

Çu Соррег Fe

Iron

Mn Manganese

8 Boron

Lab Number:

Sodium

s Mitrates (ppm)

Sulfur

418112

V 7.6 146 5.9 Organic Soluble

Matter Salts PPM**

RECOMMENDATIONS

PLOTO6_

Fertilizer/BimesApplication Rate and Timing

Grass or Grass/Legume Hay

234

Н

N / P2O5/ K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 0 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

Uli - 9-8-2011

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.) **PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office. Visit our web site at http://soilplantandpest.utk.edu for additional information.

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 - 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT.(D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due to the concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation.

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations	JUL 0 8 2011
0 - 360	Very Low	Salt effects mostly negligible.	,
361 - 1060	Low	Field crops mostly unaffected.	TN D. BOOK NOW AND
1061 - 1760	Medium	Favorable range for most establishe	d plants.
2461 - 3160	High	Reduced yields and growth of many	/ plants.
3161 +	Very High	Severe salt injury and death may oc	cur.

^{*}ppm - parts per million total salt in the air-dried sample

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in *actual pounds of nutrient* per acre expressed as N, P2O5 and K2O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.



RECOMMENDATIONS

PLOT05

Fertilizer/Lime Application Rate and Timing

Grass or Grass/Legume Hay

N / P,O, / K,O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 30-60 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

418112 Lab Number: County: Greene Mehlich 1 SOIL TEST RESULTS and RATINGS* (Pounds Per Acre Sample ID PLOT06 s **Nitrates** Çu Fe R Na Mg Zn Κ Ca P Buffer Water Sodium Sulfur (ppm) Boron Manganese Zinc Copper Iron Magnesium Calcium Potassium **Phosphorus** Value 1925 S 275 S 234 Н 5.9 7.6

Organic Soluble

Salts Matter % PPM**

ARECOMMENDATIONS

PLOT06

Fertilizer/DimerApplication Rate and Timing

Grass or Grass/Legume Hay

N / P2O2 / K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 0 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

JUL 6 8 2011

WILSON - Page 3

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.) **PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office. Visit our web site at http://soilplantandpest.utk.edu for additional information.

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 - 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT (D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due tot he concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation.

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations JUL 0 8 2011
0 - 360	Very Low	Salt effects mostly negligible.
361 - 1060	Low	Field crops mostly unaffected.
1061 - 1760	Medium	Favorable range for most established plants.
2461 - 3160	High	Reduced yields and growth of many plants.
3161 +	Very High	Severe salt injury and death may occur.
*ppm - parts per million total sa	alt in the air-dried sample	

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in *actual pounds of nutrient* per acre expressed as N, P2O5 and K2O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.



RECOMMENDATIONS

PLOT05

Fertilizer/Lime Application Rate and Timing

Grass or Grass/Legume Hay

N / P.O. / K.O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 30-60 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds of N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

County: Greene Mehlich 1 SOIL TEST RESULTS and RATINGS

(Pounds Per Acre)

Sample ID PLOT06

S R Na Cu Zn Мg K Ca Ρ Water Buffer Sodium Sulfur Manganese Boron Zinç Copper iron Magnesium Calcium Potassium **Phosphorus** Value

1925 S 275 S Н 234 5.9 7.6 146

> Organic Soluble Salts Matter % PPM'

REGOMMENDATIONS

PLOT06

Fertilizer/isime/Application:Rate and Timing

Grass or Grass/Legume Hay

N / P2O2/ K2O

Nitrogen/Phosphate/Potash: 30-165 / 0 / 0 pounds per acre

Limestone:

2 tons per acre

Apply recommended amounts of phosphate and potash(higher rates of P2O5 and K2O for seeding) in one application anytime during the year. Apply 60 pounds of nitrogen per acre March 1-30 (30 lbs. if > 30% legumes are present). Where a second cutting is expected, apply an additional 45 pounds 0f N per acre immediately after the first cutting. Stockpiling fescue in the fall 60 pounds of N per acre is suggested August 15 to September 15 if moisture is available. If renovating with legumes, nitrogen should be omitted.

If urea is the nitrogen source, especially for fall topdressings, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall. If more than 4 tons of lime per acre is required, apply only 4 tons of lime per acre and re-test after one year.

JUL 6 8 700

Matter and Ar

Lab Number:

418112

(mgg)

WILSON - Page 3

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million If you have questions about these recommendations, contact your County Extension office.

Visit our web site at http://soilplantandpest.utk.edu for additional information.

Recommendations in this report are based upon research data collected under various soil conditions and cropping systems throughout the state by University of Tennessee Research and Education Centers and Extension personnel.

Soil Test Ratings and Results

Phosphorus (P) and Potassium (K)

LOW (L) - In most cases, plants will respond to the application of that nutrient. If the nutrient is not applied, deficiency symptoms may occur and crops usually yield less than 75 percent of thier potential.

MEDIUM (M) - Plants may or may not respond to the application of the nutrient. Deficiency symptoms are not likely and soils can be expected to produce 75 percent or more of their potential without application of the nutrient.

HIGH (H) - The soil will produce at or near 100 percent of its potential without the addition of the nutrient. Amounts recommended are primarily to maintain present soil test levels.

VERY HIGH (V) - Supply of the nutrient in the soil is well in excess of the amount needed to produce 100 percent of the soil's potential. Application of the nutrient is not recommended, since further additions may create nutrient imbalances.

Soil Test Ratings and Pounds per Acre - Phosphorus (P) and Potassium (K)

Rating	Phosphorus (P)	Potassium (K)
LOW (L)	0 - 18	0 - 90
MEDIUM (M)	19 - 30	91 - 160
HIGH (H)	31 - 120	161 - 320
VERY HIGH (V)	121+	321+

Secondary and Micronutrients

SUFFICIENT (S) - Indicates an adequate supply of the nutrient is available in the soil and a plant response to its use would not normally be expected.

DEFICIENT.(D) - Indicates an inadequate supply of the nutrient is in the soil and application of the nutrient is recommended.

Soluble Salts

The soluble salts test refers to the potential for harmful effects due tot he concentration of salts present in the soil. Soluble salt levels should be in the very low to medium range. Higher levels may indicate over-fertilization or a poor drainage situation which allows accumulation.

General Soluble Salt Ratings and Interpretations

ppm*	Rating	Interpretations JUL 0 8 2011.
0 - 360	Very Low	Salt effects mostly negligible.
361 - 1060	Low	Field crops mostly unaffected.
1061 - 1760	Medium	Favorable range for most established plants.
2461 ~ 3160	High	Reduced yields and growth of many plants.
3161 +	Very High	Severe salt injury and death may occur.
*ppm - parts per million total sa	alt in the air-dried sample	

13 KU 72 (5 1-7

Organic Matter

Organic matter is estimated from total carbon determined by Carlo Erba.

Details of your soil test report

Water pH- Actual soil pH ("Water" refers to the method of measuring pH). Most plants grow best at a slightly acidic range of 6.1 to 6.5 where nutrients are most available.

Buffer Value - An additional procedure we do where lime might be required. It helps to formulate a lime rate of application based on the buffering capacity of your soil.

Nutrient Results - See explanations above.

Nitrogen/Phosphate/Potash - Where fertilizer recommendations are given in *actual pounds of nutrient* per acre expressed as N, P2O5 and K2O. Those crops grown in smaller areas will be provided recommendations in square footage noted in text below lime recommendation(s).

Limestone - If lime is recommended, water pH is too low for optimal plant growth. Crop/plant response to lime varies with both crop and variety.

For plants with the recommended target pH range of 6.1 to 6.5: At pH 6.0 - 5.8, chances are low for a response to lime. At pH 5.6 - 5.7, chances are medium for a response to lime. At pH < 5.6, chances become high for a response to lime therefore liming is strongly encouraged to increase soil pH levels and prevent yield loss. You may lime any time of the year, however fall applications are best. Types of lime recommended are ground agricultural limestone or pelleted lime.

AGRICULTURAL DIAGNOSTIC LABORATORY UNIVERSITY OF ARKANSAS - FAYETTEVILLE

***MANURE FOR FERTILIZER ANALYSIS (report for AGRI-429)

Name:	ROBERT E. WILSON	ER ANALTSIS (report	Received in lab:	6/24/2011	
Address:	2338 CHARLIE DOTY	RD.	Mailed:	7/01/2011	
City:	GREENEVILLE		 State,Zip:	TN 37745	
County:	GREENE (TN)		 CK#:	5978	
Lab. No.	M10964				
Sample No.	NONE GIVEN				
Animal type	broilers				
-age/lbs	none given				
Bedding type	shavings/sawdust				
Manure type	cake				
Sample date	6/17/2011				
Age of manure	none given				
рH	8.3				
EC(umhos/cm)	11050		im		
% H20	32.79		·		
	-(on dry basis-			
Total %N	4.14	 			<u></u>
Total %P	1.83	<u> </u>			
Total %K	3.24				· · · · · · · · · · · · · · · · · · ·
Total %Ca	3.24		<u></u>		····
Total %Carbon	37.88	A			
NO3-N, mg/kg					
NH4-N, mg/kg			<u></u>		
				····	
		n as-is basis-			
Total %N	2.78	<u> </u>			
Total %P	1.23				
Total %K	2.18	 			
Total %Ca	2.18		·		
Total %Carbon	25.46				
NO3-N, mg/kg				<u></u>	
NH4-N, mg/kg					
	<u></u>				
		s/ton on as-is basis-			
N	55.6				
P2O5	56.3				
K2O	52.8		***************************************		_,
Ca	43.6				
Total Carbon	509.2				
NO3-N			•		
NH4-N		/ "da," bosis is colouls			

^{***}all analyses performed on "as-is" basis/ "dry" basis is calculated from moisture content

1. 其一是一个多数。

^{*}lbs/ton P2O5 = %Total P on "as-is" basis multiplied by 20*2.29

^{*}lbs/ton K2O = %Total K on "as-is" basis multiplied by 20*1.2

AGRICULTURAL DIAGNOSTIC LABORATORY UNIVERSITY OF ARKANSAS - FAYETTEVILLE

***MANURE FOR FERTILIZER ANALYSIS (report for AGRI-429)

Name:	ROBERT E. WILSON		Received in lab:	6/24/2011				
Address:	2338 CHARLIE DOTY RD.		Mailed:	7/01/2011				
City:	GREENEVILLE		State,Zip:	TN 37745				
County:	GREENE (TN)		CK#:	5978				
Lab. No.	M10964							
Sample No.	NONE GIVEN							
Animal type	broilers							
-age/ibs	none given							
Bedding type	shavings/sawdust							
Manure type	cake							
Sample date	6/17/2011							
Age of manure	none given							
рH	8.3							
EC(umhos/cm)	11050							
% H20	32.79							
-on dry basis-								
Total %N	4.14							
Total %P	1.83							
Total %K	3.24							
Total %Ca	3.24							
Total %Carbon	37.88							
NO3-N, mg/kg			· ·					
NH4-N, mg/kg								
	-on	as-is basis-						
Total %N	2.78							
Total %P	1.23							
Total %K	2.18							
Total %Ca	2.18							
Total %Carbon	25.46							
NO3-N, mg/kg								
NH4-N, mg/kg								
	-lbs	/ton on as-is basis-			-			
N	55.6							
P2O5	56.3							
K2O	52.8							
Ca	43.6							
Total Carbon	509.2							
NO3-N								
NH4-N								
***all analyses no	orformed on "ac-ic" hasis/	"do/" basis is calculat	ed from moietu	re content				

^{***}all analyses performed on "as-is" basis/ "dry" basis is calculated from moisture content

^{*}lbs/ton P2O5 = %Total P on "as-is" basis multiplied by 20*2.29

^{*}Ibs/ton K2O = %Total K on "as-is" basis multiplied by 20*1.2

AGRICULTURAL DIAGNOSTIC LABORATORY UNIVERSITY OF ARKANSAS - FAYETTEVILLE

***MANURE FOR FERTILIZER ANALYSIS (report for AGRI-429)

Name:	ROBERT E. WILSON		Received in lab:	6/24/2011				
Address:	2338 CHARLIE DOTY RD.		Mailed:	7/01/2011				
City:	GREENEVILLE		State,Zip:	TN 37745				
County:	GREENE (TN)		CK#:	5978				
Lab. No.	M10964							
Sample No.	NONE GIVEN							
Animal type	broilers							
-age/lbs	none given							
Bedding type	shavings/sawdust							
Manure type	cake							
Sample date	6/17/2011							
Age of manure	none given	-						
рН	8.3							
EC(umhos/cm)	11050							
% H20	32.79							
-on dry basis-								
Total %N	4.14	 						
Total %P	1.83	 						
Total %K	3.24							
Total %Ca	3.24			· · · · · · · · · · · · · · · · · · ·				
Total %Carbon	37.88	<u></u>		 	- 11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 			
NO3-N, mg/kg		 			-, ., 			
NH4-N, mg/kg		 						
				 				
-on as-is basis-								
Total %N	2.78							
Total %P	1.23	,						
Total %K	2.18							
Total %Ca	2.18		· · · · · · · · · · · · · · · · · · ·					
Total %Carbon	25.46	 						
NO3-N, mg/kg								
NH4-N, mg/kg	**************************************							
	18- **		· · · · · · · · · · · · · · · · · · ·					
N		on as-is basis-						
N P2O5	<u>55.6</u> 56.3							
K2O			- i					
	52.8							
Ca	43.6							
Total Carbon	509.2	<u> </u>		*				
NO3-N			<u> </u>	·				
NH4-N		d basis is saled						

^{***}all analyses performed on "as-is" basis/ "dry" basis is calculated from moisture content

^{*}lbs/ton P2O5 = %Total P on "as-is" basis multiplied by 20*2.29

^{*}lbs/ton K2O = %Total K on "as-is" basis multiplied by 20*1.2